

efergy

CE RoHS    N16354

How to contact us:

If you have any questions about using your Efergy monitor, or if you'd like further advice about energy saving at home or at work, please feel free to contact us: Call Efergy on +44 (0) 8450177 769

Efergy will answer any installation or set-up questions and offer quick energy saving tips.

Lines are open between 8.30am and 5pm Monday to Friday.

You can also email us: info@efergy.com. Further information is also available at www.efergy.com

efergy.com

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INTRODUCTION

Energy metering and monitoring are at the heart of energy management: you need the information to tell when and where you're saving money.

The Efergy monitor is an Electricity Display Device or EDD that shows the amount of energy that a household is consuming at the time the display is read. The display can also give the user a reading showing usage in financial terms. You can walk around the home with your display device, switching appliances on and off, and see the difference that this makes.

How to contact us

If you have any questions about using your Efergy monitor or if you'd like further advice on monitoring electricity at home, please feel free to contact us, or visit the website for up to date information, downloads, and frequently asked questions.

Email your questions at info@efergy.com

We aim to answer all emails within 48 hours.

Efergy Customer Service: T +44 (0) 8450177 769

SAFETY

IT IS IMPORTANT THAT YOU OBSERVE SOME SIMPLE PRECAUTIONS BEFORE USING THIS PRODUCT.

When installing the Efergy monitor you should find that everything is relatively straightforward. However, there are number of important health and safety issues which you need to be aware of.

It is recommended that you contact a qualified electrician to carry out the installation. The sensor clip fits onto the internal live feed cable inside the electricity meter or fuse box, which delivers the live supply to your home. In some countries (i.e. Australia) the live cable can only be accessed by a qualified electrician. Contact Efergy to find out if it's mandatory for you to use a qualified electrician in your country.

Please read and act upon the important information on the following pages. Remember the device is not intrusive and does not require any rewiring.

If you notice anything unusual about the electricity supply or the fuse box, such as loose wires, exposed cabling, burn marks, holes in the insulating materials or damage to the meter, then stop immediately and report the findings to your supply company.

Do not force or bend the cables at any point during the installation.

If you are worried or have any concerns about the installation, please contact a qualified electrician immediately.

The user does not need to remove the sensor through the working life of the unit. Battery changes are performed on the transmitter and on the display. There are no batteries to change in the sensor.

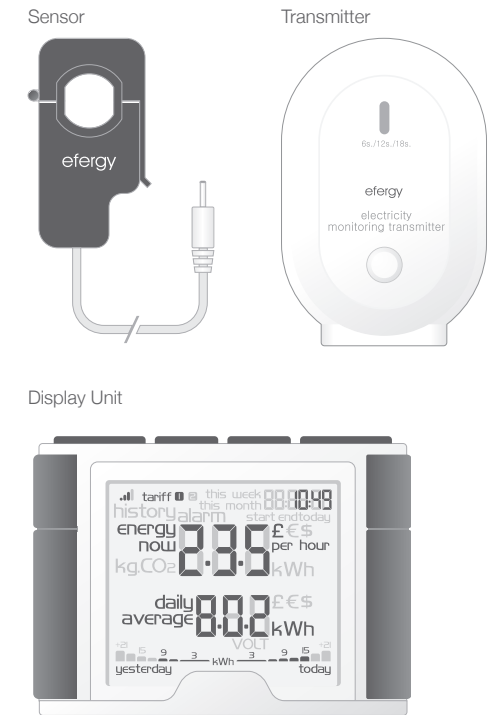
IN THE BOX

Your Efergy Pack includes:

- 1x Sensor
- 1x Transmitter
- 1x Display Unit

You will need to fit the sensor to the live feed cable which connects the meter to the fuse box (consumer unit). Any power you use in your home will pass through this cable.

The clip-on sensor acts as a current sensor, and relays the amount of current being drawn in the home to the transmitter. From there it is sent wirelessly to the monitor display unit, which shows how much power is being consumed.



FIND THE FEED CABLE IN YOUR ELECTRICITY METER (UK)

The Efergy monitor is installed by clipping the sensor around the feed cable of your electricity meter.

LOCATE YOUR ELECTRICITY METER

Locate your electricity meter and determine its type. You can normally find this on an outside wall, in the garage, basement or utility room. If you live in a flat, it can often be found outside your front door, in the communal staircase, or in the basement. Ensure there is enough of accessible cable coming from the bottom of your electricity meter.

Modern office blocks and apartments may have safety panels to protect wires entering the meter. It is recommended that professional electricians be contacted where this is the case.

FIND THE FEED CABLE

You should find four cables exiting the meter. The feed cable (Cable 4) is the live cable exiting from the meter to the fuse box. Connect the sensor to Cable 4 (Cable 4 will always be on the right hand end of the meter, see Diagram 1).

Some installations will have Cable 1 and Cable 2 covered, or partially covered to prevent any tampering with the supply (see Diagram 2). Attach the sensor to Cable 4 (far right cable).

Diagram 1

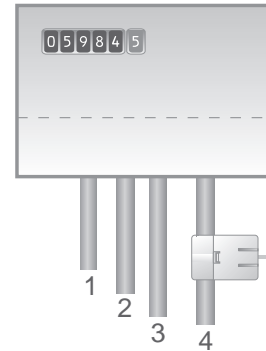
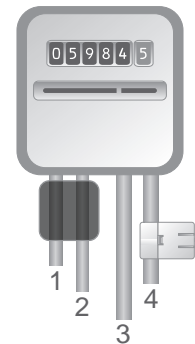


Diagram 2

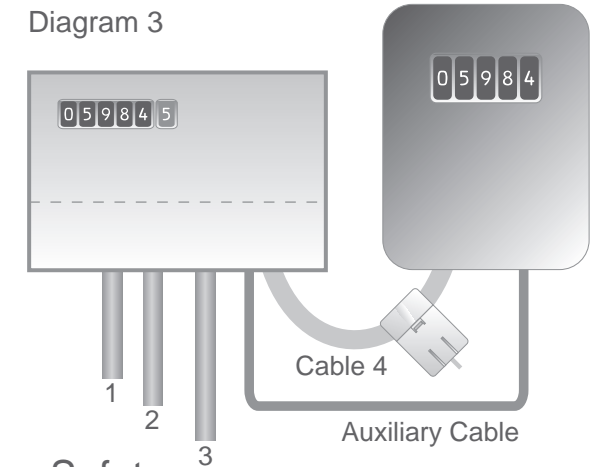


Dual Tariff meters (Diagram 3) will often have an Auxiliary cable running between Cable 3 and Cable 4. Auxiliary cables will be smaller in diameter than the feed cables, and will run into an adjoining metering device.

Newer installations will normally have two cables exiting from the bottom of the meter. One is the earth cable, the other the live feed cable. The sensor should be clipped around the live feed cable (this is normally brown coloured).

If you have a three phase supply, or economy 7 meter, then you may require additional sensors. These can be simply plugged into the additional sockets at the base of the transmitter. Please contact your supplier for additional sensors.

Diagram 3



Safety

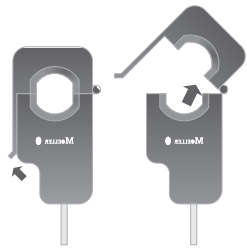
UNDER NO CIRCUMSTANCES SHOULD YOU TRY TO ATTACH THE SENSOR IF THERE IS ANY DAMAGE TO THE ELECTRIC METER CABLES. NO CABLES NEED TO BE CUT. DO NOT CUT ANY CABLES.

CONTACT YOUR LOCAL ELECTRICITY SUPPLIER IF YOU HAVE ANY CONCERNS ABOUT CLIPPING THE SENSOR ONTO THE CORRECT CABLE.

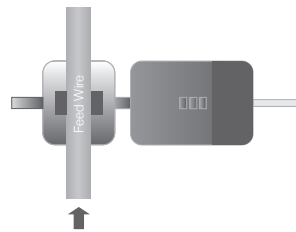
INSTALLATION

FIT THE SENSOR

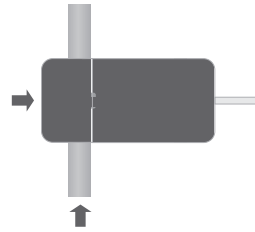
The sensor needs to be fitted to the live feed cable. Sensors are suitable for cables up to 12mm in diameter. You should not force the cable to fit.



1. Push the release cap to open the sensor.



2. Select the correct feed cable, then place the feed cable into the top of the sensor.



3. Close the sensor. The sensor is secure when a "click" is heard.

PLUG THE SENSOR CABLE INTO THE TRANSMITTER

Insert the jack on the end of the white wire into any of the three input sockets on the transmitter. The clip-on sensor acts as a current sensor and relays the current being drawn

LINKING THE TRANSMITTER AND THE DISPLAY

1. Ensure three AA batteries are inserted in the transmitter and the display unit.

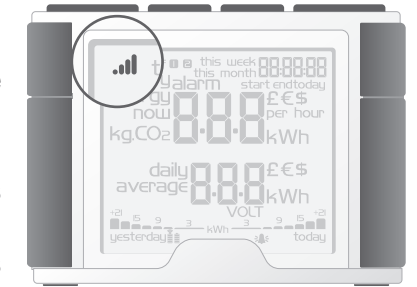
QUICK HINT:

2. Push the Link Button on the reverse of the display unit. The transmission signal symbol will flash for one minute.

If the **LINK** is **COMPLETED** you will see the transmission signal symbol

3. While the transmission signal in the display flashes push the learn button in the transmitter and wait until the transmission signal symbol becomes solid.

NOTE: The default value for the transmission frequency is six seconds. This means the transmitter is sending information every six seconds. You can change the frequency from 6s (red light flashing) to 12s (orange light) and to 18s (green light) pushing and holding the transmitter button.



If the **LINK** is **NOT COMPLETED** you will see dashes on the display.



SETTING THE TIME AND DATE

The Efergy monitor needs to know the time and date in order to provide you with the correct information. Set the time and date as follows:

STEP 1

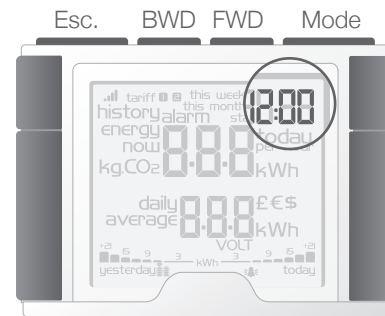
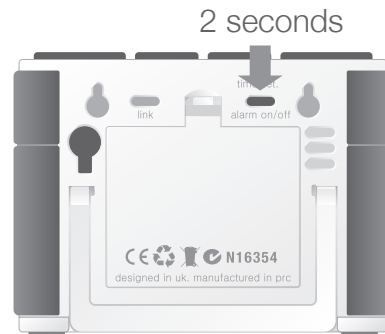
On the reverse of the display you will find the **Time Button**. Press and hold for two seconds. Date set up will flash in the display.

STEP 2

Set the date by using the **BWD** and **FWD**. Press **Mode Button** to confirm and move to month set up. Repeat the process to set the year. Press **Mode Button** once to save and move onto time set up.

STEP 2

Set the hour to the correct time by using **BWD** and **FWD**. Press **Mode Button** once to save the hours. Repeat for minutes, using the **Mode Button** to confirm. Once the correct time and date have been set, push **Esc. Button** to save and exit.



SET-UP INSTRUCTIONS

The Efergy monitor needs to know unit cost per kWh charged by your electricity supplier, along with voltage and alarm settings. The following four steps will move through each of these settings. If you have dual tariff rate meter, please see overleaf.

Press Press and hold down MODE BUTTON for two seconds, this will enable you to enter the setting mode.

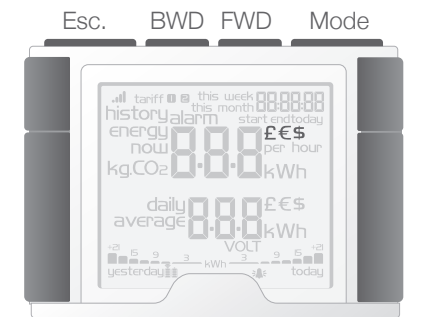
STEP 1. VOLTAGE

Press and hold **Mode Button** for two seconds. Default voltage is set at 230V. Use **BWD** and **FWD** to change the voltage. Press **Mode Button** to save your setting and move into currency selection setting.

STEP 2. CURRENCY SELECTION

Select the currency using **BWD** and **FWD**. Default currency will be "£". Push **Mode Button** to confirm and to move onto tariff selection set up.

Note: 20 seconds of inactivity in setting mode will return the unit to normal display mode without saving changes.



STEP 3. SINGLE TARIFF SET UP

On release you will see the **tariff 1** symbol flash. If you are charged one single tariff push **Mode Button** to confirm. If you have dual tariff rate, please see overleaf.

Quick Hint

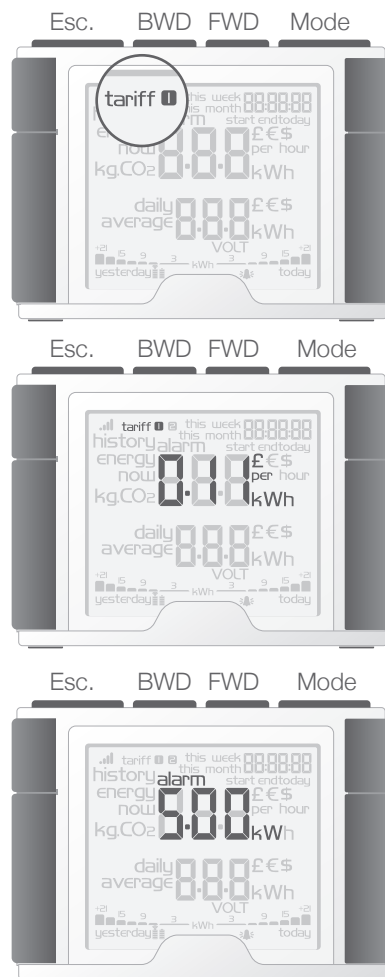
Throughout the set-up process, push **ESC. BUTTON** at any time, your settings will be saved & you will exit the function setting mode.

STEP 4. ELECTRICITY COST

Default cost is set at 11p/kWh. This is the average price per kWh electricity that suppliers charge. Use **BWD** and **FWD** to change the cost per kWh. Press **Mode Button** to save your setting and to move onto alarm setting.

STEP 5. ALARM

Default Alarm is set at 5kW. If the alarm function is switched on, and you are using more than 5kW, the alarm will sound and a red light will glow from the button of the display unit. This value can be decreased or increased using **BWD** and **FWD**. Press **Mode Button** to store the value. Press **Esc. Button** to exit the function setting mode. To activate and deactivate the Alarm at any time push **Alarm Button** on the reverse of the display.



DUAL TARIFF MODE

If you have a dual tariff rate meter you may want to set-up the dual tariff function.

STEP 1. ACTIVATION OF DUAL TARIFF

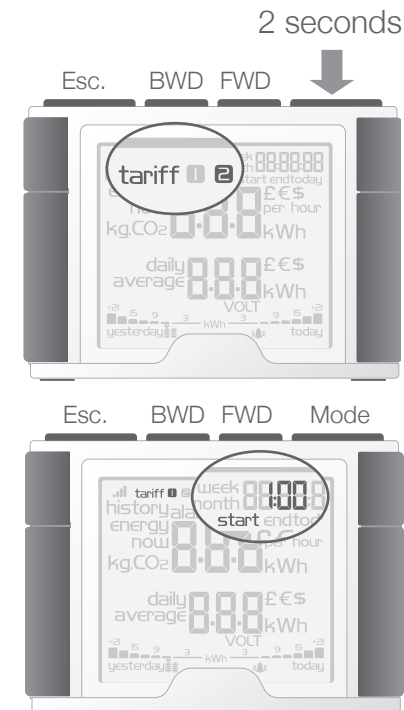
Press and hold **Mode Button** for two seconds. On release you will see the voltage setting flash. Press **Mode** twice and you will move onto the tariff selection setting.

Now you will see the symbol **tariff 1** flash. Press **BWD** or **FWD** to select dual tariff set up **tariff 2**. Push **Mode Button** to confirm and the symbol **start tariff 1** will flash.

STEP 2. SET START & END TIME FOR TARIFF 1

Set the start time for Tariff 1 first using **BWD** or **FWD** buttons. Set the hours and press **Mode Button** to save and move to minute set up. Set minutes using **BWD** or **FWD** and pushing **Mode Button** to confirm.

Now the symbol **start** will disappear from the display and the symbol **end** will appear. Repeat the process for setting the time Tariff 1 ends.



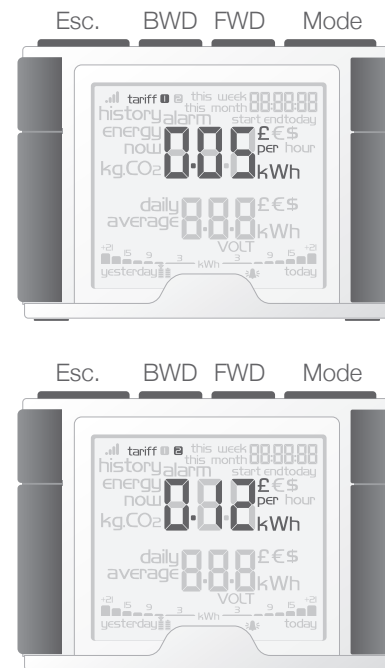
Example: If you are on an economy-7 tariff which starts at 1am and finishes at 8am, set **start tariff 1** at 01:00 set **end tariff 1** at 08:00. Push the Mode Button to confirm. Select the currency and set the cost per kWh you pay for each tariff, approx 5p/kWh and 12p/kWh for night and day time rates respectively.

STEP 3. ELECTRICITY COSTS - TARIFF 1

Default price of 11p/kWh will flash. Use **BWD** and **FWD** buttons to change the cost per kWh. Press **Mode Button** to save your setting. Tariff 2 set up will flash.

STEP 4. ELECTRICITY COSTS - TARIFF 2

Default price of 11p/kWh for Tariff 2 will flash. Use **BWD** and **FWD** buttons to change the cost per kWh. Press **Mode Button** to save your setting. Voltage set up will flash.



DISPLAY INFORMATION

The Efergy monitor shows instant, historical and average information.

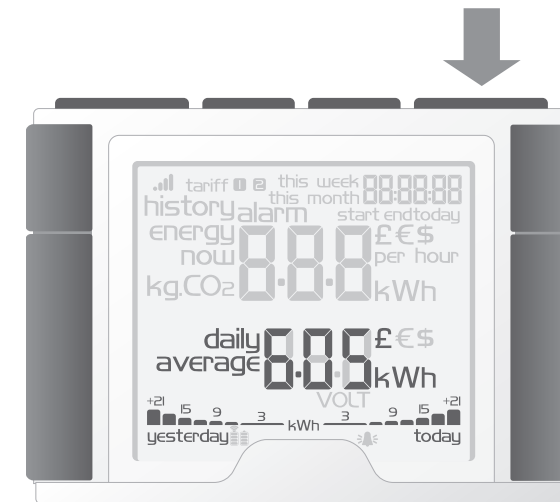
Some of the information will always be displayed on the screen regardless of whether you are in INSTANT or HISTORY modes.

DAILY AVERAGE INFORMATION

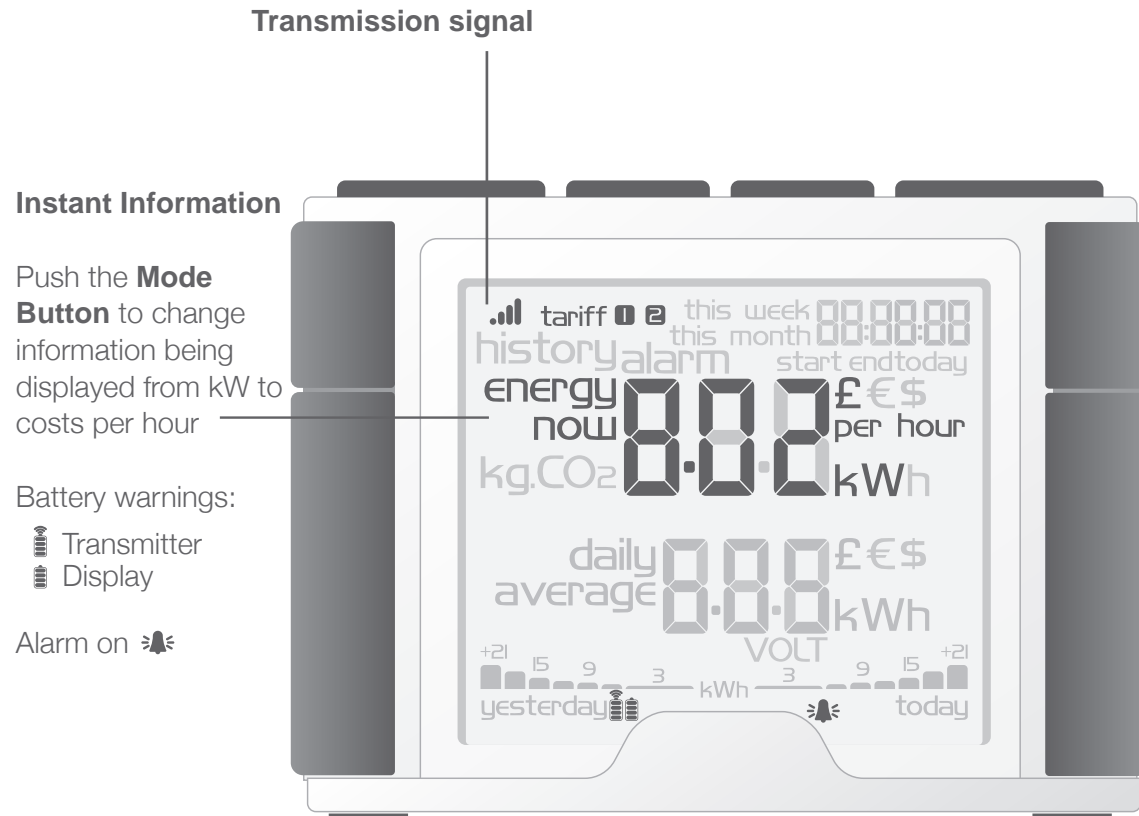
Display daily average consumption in kWh or costs. Push **Mode Button** to change display information from kWh to costs.

GRAPHICAL DISPLAY

The bars at the bottom of the display compare graphically your current energy consumption today with that of the previous day.



INSTANT MODE



HISTORY MODE

History

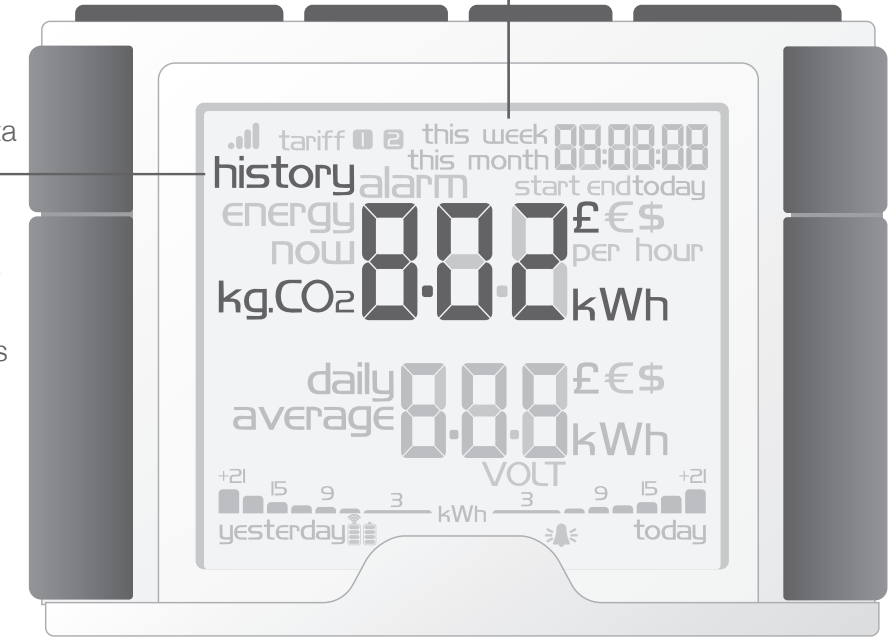
Push the **History Button** to access daily, weekly and monthly stored data

Push the **Mode Button** to change information display from kWh to costs and CO₂ emissions

Days, weeks, months

Push the history button to move from daily to weekly to monthly information

Use the **BWD** and **FWD** buttons to scroll between dates and compare consumption data



FREQUENTLY ASKED QUESTIONS

If I remove the batteries will I lose the information on the display?

If you need to change or remove the batteries, the display has an internal memory, so information stored on the display will not be lost.

How do I reset the display (clear the data and start again)?

Press mode and history buttons simultaneously and hold for two seconds.

How far does the device transmit?

Transmitter's works over 40meters within the home. The 433MHz range is well suited for in home use. This can cover three floors, and also well suited to builders where meters are outside the main building.

I have three dashes (- - -) showing on the display. What does this mean?

Move the display closer to the transmitter and press the link button. If the dashes remain on the display this would indicate the transmitter and receiver are not communicating. Please contact Efergy customer service to help locate the problem.

Backlight appears to work sometimes, and not other times. Is my display broken?

No. The backlight is on a timer to save battery life. The display should work at darker periods of the day.

The transmitter and receiver do not seem to communicate with each other, what should I do?

Contact Efergy customer service telephone: +44 (0) 8450177 769

SPECIFICATIONS

Model Name/Number: efergy lite 1.0

Frequency: 433.52MHz

Transmission Time: 6s. 12s. o 18s.

Transmission Range: 40m-70m

Voltage Range (in the sensor): 110V-400V

Measuring Current: 50mA-95A

Accuracy: <10%

The LED backlight will be activated from 18:00Hrs to 6:00Hrs.

Carbon ratio: 0.50 kg.CO₂ / kWh